

Appl. No. 10/099,901
Amdt. dated June 16, 2006
Reply to Office Action of May 4, 2006

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for transferring multimedia information from a source location to a destination location through one or more networks, the system comprising:
 - a source output ~~providing~~ adapted to provide a first stream of information in a first protocol characterized by one of a plurality of source capabilities;
 - a destination input ~~receiving~~ adapted to receive a second stream of information in a second protocol characterized by one of a plurality of destination capabilities;
 - a proxy transcoder server ("PTS") coupled between the source output and the destination input, wherein the PTS is adapted to perform transcoding of multimedia system protocols, the PTS comprising:
 - a capability module adapted to identify ~~the one source capability of the plurality of source output capabilities~~ one source capability of the plurality of source output capabilities and adapted to identify ~~one destination capability of capability of the plurality of destination input capabilities;~~ one destination capability of the plurality of destination input capabilities;
 - a selection module adapted to select a transcoding process based upon the one ~~source capability of the plurality of source capabilities~~ source capability of the plurality of source capabilities and the one destination capability ~~from the of the plurality of destination capabilities; and~~
 - a transcoding module adapted to use the selected transcoding process to process the first stream of information;
2. (Currently Amended) The system of claim 1 wherein the one or more transport networks are selected from a group comprising the Internet, a mobile network, a wide area network, a local area network, PTSN, ISDN, and SONET.
3. (Original) The system of claim 1 wherein at least one of the source output and the destination input is that of a remote device.

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4. (Original) The system of claim 3 wherein the capability module identifies at least one of the output and input of the remote device, based on information stored in the device, based on user subscription information stored in a network database of the user's service provider, based on in-band information command and control within a stream exchanged, or pre-set by the service provider.

5. (Original) The system of claim 1 wherein the transcoding process selected by the capability module transcodes data from a first bitstream protocol mode to a second bitstream protocol mode.

6. (Original) The system for claim 1 wherein the PTS further comprising a rate control module regulating the data rate produced by the PTS.

7. (Original) The system for claim 6 wherein the rate control module detects network status information by calculating "round-trip" time information based on network congestion information, bandwidth information, quality information from a network host or network access provider, or internal PTS mechanisms.

8. (Currently Amended) The system for claim 7 wherein the "round-trip" time information can be measured by send sending a "ping" packet to either the source location or the destination location.

9. (Original) The system for claim 6 wherein the rate control module detects the network status information by using in-band information.

10. (Original) The system for claim 6 wherein the rate control module regulates the data rate by changing transcoding parameters.

11. (Original) The system for claim 6 wherein the rate control module regulates the data rate by instructing network equipment to give a higher priority to data being handled by the PTS than other data.

12. (Currently Amended) The system of claim 1 wherein the format of the capability is selected from a group comprising ITU, IETF, and WAP.

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13. (Original) The system of claim 1 wherein the one or more networks are selected from a plurality of different networks, each of the network being configured for a particular standard.

14. (Original) The system of claim 1 wherein the PTS further comprising a network addressing module to determine the network address of the source output and the network address of the destination input.

15. (Original) The system of claim 1 wherein the PTS further comprising a media mixing process to combine bitstreams associated with two or more audio streams and retransmit the combined bitstreams to the destination input.

16. (Original) The system of claim 1 wherein the PTS further comprising an intellectual property rights management module to manage and process information on intellectual property rights.

17. (Original) The system of claim 1 wherein the PTS further comprising a encryption and decryption process to encrypt and decrypt the data.

18. (Original) The system for claim 6 wherein the rate control module regulates the data rate dynamically and in real time.

19. (Original) The system of claim 1 wherein the transcoding module are programmable to transcode between various types of capabilities for the source output and various types of capabilities for the destination input.

20. (Currently Amended) A system for transferring multimedia information from source to destination locations through one or more networks, the system comprising:
a source output in a first format from a plurality of source capabilities, the source output being coupled to a first network, the source output providing a first stream of information coupled to a first network and adapted to provide a first stream of information, wherein the source output is adapted to support a first real-time protocol characterized by one of a plurality of source output capabilities;

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~~a destination input to be received in a second format from a plurality of destination capabilities, the destination input being coupled to a second network, the destination input receiving a second stream of information coupled to a second network and receiving a second stream of information, wherein the destination input is adapted to support a second real-time protocol characterized by one of a plurality of destination input capabilities;~~

a proxy transcoder server ("PTS") coupled between the source output and the destination input, the proxy transcoder server comprising:

a capability process coupled to the source output, the capability process being adapted to identify the first format of real-time protocol supported by the source output and adapted to identify the second format of real-time protocol supported by the destination input;

a transcoding process coupled to the capability process, the transcoding process comprising a plurality of transcoding modules numbered 1 through N, where N is an integer greater than 1, the transcoding process being adapted to select one of the plurality of transcoding process modules based upon the first format real-time protocol that is associated with a capability and the second format real-time protocol that is associated with a second capability; and

a bit rate control process coupled to the transcoding process, the bit rate control process being adapted to receive network status information from the first network, the bit rate control being adapted to adjust a status of the stream of information based upon the network status information.

21. (Original) The system of claim 20 wherein the status information comprises a ping.

22. (Original) The system of claim 20 wherein the status is a stop status.

23. (Original) The system of claim 20 wherein the status is a prioritization status.

24. (Original) The system of claim 20 wherein the status is to adjust a bit rate by selecting a lower bit rate coder.

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25. (Currently Amended) A method for processing streams of information, the method comprising:
identifying a source capability from a plurality of source capabilities for a stream of information;
identifying a destination capability from a plurality of destination capabilities;
selecting a transcoding process from a plurality of transcoding processes in a library based upon the identified source capability and the identified destination capability, wherein the selected transcoding process comprises the best transcoding mode for the identified source capability and the identified destination capability;
processing the stream of information using the selected transcoding process if the identified source capability and the identified destination capability are different;
transferring the stream of information from the source to the destination free from one of the transcoding processes ~~[[of]]~~ if the identified source capability and the identified destination capability matches.

26. (Original) The method of claim 25 wherein the selected transcoding process is provided by empirical information.

27. (Original) The method of claim 25 wherein the library is a look up table having at least the plurality of source capabilities and the plurality of destination capabilities in a second dimension.

28. (New) A system for transferring multimedia information from a source location to a destination location through one or more networks, the system comprising:
a source output providing a first stream of information formatted according to a conversational multimedia system protocol;
a destination input receiving a second stream of information formatted according to a streaming multimedia system protocol;
a proxy transcoder server ("PTS") coupled between the source output and the destination input, the PTS comprising:

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a capability module adapted to identify one source capability of the conversational multimedia system protocol and adapted to identify one destination capability of the streaming multimedia system protocol;

a selection module adapted to select a transcoding process based upon the one source capability of the conversational multimedia system protocol and the one destination capability of the streaming multimedia system protocol; and

a transcoding module adapted to use the selected transcoding process to process the first stream of information.

29. (New) A system for transferring multimedia information from a source location to a destination location through one or more networks, the system comprising:

a source output providing a first stream of information formatted according to a streaming multimedia system protocol;

a destination input receiving a second stream of information formatted according to a conversational multimedia system protocol;

a proxy transcoder server ("PTS") coupled between the source output and the destination input, the PTS comprising:

a capability module adapted to identify one source capability of the streaming multimedia system protocol and adapted to identify one destination capability of the conversational multimedia system protocol;

a selection module adapted to select a transcoding process based upon the one source capability of the streaming multimedia system protocol and the one destination capability of the conversational multimedia system protocol; and

a transcoding module adapted to use the selected transcoding process to process the first stream of information.